

IN THE SPECIFICATION

At the end of the application, please replace the current Sequence Listing with the attached paper copy of the Sequence Listing.

Please replace the paragraph beginning on page 6, line 14, with the following rewritten paragraph:

Said anti-Env-SU antibodies are in particular capable of binding to a region which corresponds to amino acids 122-131 (inclusive) and/or to a region which corresponds to amino acids 312-316 (inclusive) and/or to a region which corresponds to amino acids 181-186 (inclusive) of the sequence identified in ~~SEQ ID NO: 1~~SEQ ID NO: 3.

Please replace the paragraph beginning on page 8, line 23, with the following rewritten paragraph:

Said anti-Env-SU antibodies are in particular capable of binding to a region which corresponds to amino acids 122-131 (inclusive) and/or to a region which corresponds to amino acids 312-316 (inclusive) and/or to a region which corresponds to amino acids 181-186 (inclusive) of the sequence identified in ~~SEQ ID NO: 1~~SEQ ID NO: 3.

Please replace the paragraph beginning on page 9, line 9, with the following rewritten paragraph:

Said anti-Env-SU antibodies are in particular capable of binding to a region which corresponds to amino acids 122-131 (inclusive) and/or to a region which corresponds to amino acids 312-316 (inclusive) and/or to a region which corresponds to amino acids 181-186 (inclusive) of the sequence identified in ~~SEQ ID NO: 1~~SEQ ID NO: 3.

Please replace the paragraph beginning on page 15, line 31, with the following rewritten paragraph:

Figure 1 represents the structures of the ~~Env pV14~~Env pV14 envelope, of the signal peptide and of the soluble fraction of the Env-SU envelope and the amino acid sequence of the signal peptide and of the soluble fraction of the Env-SU envelope. Figure 1 (a) corresponds to the structure of ~~Env pV14~~Env pV14 (the complete envelope protein of MSRV) and to the structure of the signal peptide and of the soluble fraction of the Env-SU envelope. The soluble fraction of the envelope (Env-SU) corresponds to a fraction of 287 amino acids representing the soluble extracellular unit, cleaved at position K316 of the complete Env pV14 protein. Figure 1 (b) (SEQ ID NO: 3) represents the amino acid sequence of the signal peptide (SEQ ID NO: 2) and of Env SU (SEQ ID NO: 1). In Figure 1 (b), the amino acid sequence of the signal peptide is boxed in and the soluble fraction of the envelope (Env-SU) is indicated in bold characters. ~~The sequence of Env-SU is referenced in the sequence identifier as SEQ ID NO: 1.~~ The complete sequence of the Env pV14 envelope is available in GenBank under the accession number AF331500. The various parts of the Env pV14 protein are generally defined as described now, with reference to Figure 1 (a):

- the signal peptide begins at amino acid 1 and ends at amino acid 29 (inclusive) (amino acid residues 1-29 of SEQ ID NO: 5),
- Env-SU begins at amino acid 30 and ends at amino acid 316 (inclusive) (amino acids residues 30-316 of SEQ ID NO: 5), and

- the transmembrane domain begins at amino acid 317 and ends at amino acid 542 (inclusive) (amino acid residues 317-542 of SEQ ID NO: 5).

Please replace the paragraph beginning on page 35, line 39, with the following rewritten paragraph:

Figure 23: Amino acid sequences compared between the MSRV ENV protein (lower line) (SEQ ID NO: 5) and the ENV protein encoded by the ~~HERV-W7q~~HERV-W7q copy (upper line) (SEQ ID NO: 4); the sequences boxed in ~~are identical (conserved regions)~~ correspond to conserved regions.

Please replace the paragraph beginning on page 37, line 22, with the following rewritten paragraph:

The surface protein of the MSRV envelope (Env-SU) corresponds to a protein sequence of 287 amino acids (SEQ ID NO: 1) of the total envelope protein (Env ~~Pv14p~~V14, GenBank AF331500). The structures and the amino acid sequences of Env ~~Pv14p~~V14 and of Env-SU are respectively represented in Figures 1 (a) and 1 (b) (SEQ ID NO: 3). The recombinant MSRV Env-SU protein is expressed in *E. coli* and purified on an FPLC column. The quality and the purity of the protein are confirmed by mass spectrometry and Western blotting. Casein kinase is used as an autologous negative control. This control protein was produced and purified under the same conditions as Env-SU.

Please replace the paragraph beginning on page 88, line 33, with the following rewritten paragraph:

Moreover, the analysis of the amino acid sequence of the MSRV ENV (SEQ ID NO: 5) and HERV-W7q ENV (syncitin) (SEQ ID NO: 4) proteins shows the strong homology and the

- conservation of the main amino acid motifs in the MSRV/HERV-W family (Figure 23). This is reflected by a cross reactivity with the anti-ENV monoclonal antibodies (Figure 24).

Please replace the paragraph beginning on page 89, line 1, with the following rewritten paragraph:

The sequence analysis (cf. Figure 25) also makes it possible to evaluate antigenic regions of interest in the sequence of the ENV-SU protein referenced in SEQ ID NO: 1, corresponding to the regions defined by amino acids 122-131 (inclusive) and/or 312-316 (inclusive) and/or 181-186 (inclusive) of SEQ ID NO: 3.